

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-007027**Date Inspected:** 04-Feb-2009**Project Name:** SAS Superstructure**OSM Arrival Time:** 645**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1845**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Sun Wei / Sun Bo**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG Components**Summary of Items Observed:**

The Caltrans (CT) Quality Assurance (QA) Inspector Charlie Franco was present at the time requested to randomly observe welding and associated operations being performed for the Tower and Orthotropic Box Girders (OBG).

Heavy Equipment Shop Bay 10:

The QA Inspector was requested by ZPMC Quality Control (QC) per Notification Sheet 001917, to witness Final Magnetic Particle Testing (MT) of several welds on Lift 1 Skin C North and Lift 1 Skin E North; to be followed up by Final QA Visual Testing (VT) Inspection and MT Verification. ZPMC QC rejected areas at each of the areas on Skin C and cancelled the Final MT on Skin E.

OBG Sub-Assembly Bay 12:

The QA Inspector randomly observed ZPMC welding personnel performing heat straightening operations to reduce weld induced distortion from welding the T=35 mm thick I-Ribs to Deck Plate 1AE-DP590-001 at Complete Joint Penetration (CJP) Weld Joint (WJ) Numbers 013, 015, 017, 019 and 021. 1AE-DP590-001 is placed upside down with heat being applied to the underside of the base plate of Deck Plate 1AE-DP590-001. The QA Inspector randomly observed that counter weights were in place on the U-Rib end. The work was being performed in accordance with ZPMC Heat Straightening Request (HSR) HSR (B)-242 Rev. 0.

The QA Inspector randomly observed 1 ZPMC helper utilizing an angle grinder to clean out excavations after

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

Carbon Air Arc Gouging (CAAG), to remove rejects previously detected by ZPMC QC Ultrasonic Testing (UT) Examination, in the welds attaching the T=35 mm I-Ribs to Deck Plate 1AE-DP615-001 at WJ's 012 and 014.

The QA Inspector randomly observed 1 ZPMC helper utilizing an angle grinder to blend areas that had been previously repaired in WJ's 013, 015, 017, 019 and 021 in the CJP welds attaching the T=35 mm I-Ribs to Deck Plate 1AE-DP595-001.

The QA Inspector randomly observed 2 ZPMC helpers utilizing angle grinders to blend areas that had been previously repaired in WJ's 012, 014, 016 and 018 in the CJP welds attaching the T=35 mm I-Ribs to Deck Plate 1AW-DP570-001.

The QA Inspector randomly observed ZPMC welder Jiang Jing Guang ID 062265, utilizing the Flux Cored Arc Welding (FCAW) Process in the 2G/2F (Horizontal Groove/Horizontal Fillet) Positions with ZPMC Weld Procedure Specification (WPS) WPS-345-FCAW-2G (2F)-Repair-1, to perform weld repairs in excavated areas of WJ 017 on Deck Plate 1AE-DP585-001. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

The QA Inspector randomly observed 2 ZPMC helpers utilizing angle grinders to blend areas that had been previously repaired in WJ's 012, 014, 016 and 018 in the CJP welds attaching the T=35 mm I-Ribs to Deck Plate 1AE-DP5610-001.

The QA Inspector randomly observed ZPMC welder Jiang Jing Guang ID 062265, utilizing the FCAW Process in the 3G/3F (Vertical Groove/Vertical Fillet) Positions with ZPMC WPS WPS-B-T-2233-B-U2a-F, to weld the U-Rib Extensions to the U-Ribs on Deck Plate 1AE-DP605-001. The QA Inspector randomly observed ZPMC QC monitoring weld parameters. Weld parameters appeared to comply with contract requirements.

North 40 Storage Area:

The QA Inspector randomly observed that several Floor Beam Web Plate Sub-Assemblies had been stored improperly and at least one of them had incurred some damage from apparent improper handling. The attached photographs provide additional detail on the damage to FB024-003. The QA Inspector generated an Incident Report documenting the improper storage and handling.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

Summary of Conversations:

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 150-0042-2372, who represents the Office of Structural Materials for your project.

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

Inspected By: Franco,Charlie

Quality Assurance Inspector

Reviewed By: Clifford,William

QA Reviewer